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ANNUAL REPORT OF THE MINISTER OF MINES
FOR 1936.

Part F -- Special Report
by
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BRANDYWINE. This prospect, in the Vancouver Mining Division, adjoins the Blue Jack to the south-east and consists of eleven claims held by location and owned by W. Anderson, W. Barclay, and J. McKenzie. The cabin and main workings are on the banks of Brandywine creek about 2 miles north-north-west of Brandywine Falls (Brew) station on the Pacific Great Eastern railway north of Squamish. (See B. C. Lands Department Reference Map No. 62). The prospected area lies on the irregular, but generally steep, wooded slope on the western side of the creek at elevations varying from 1,800 to 2,200 feet as compared with 1,536 feet at the railway. The property is connected with the latter by trail, about 2 miles in length, which follows the creek, crossing it on foot-logs in places, and also with McGuire siding by pack-trail, about 1.25 miles in length, which is part of the Blue Jack mine trail. In the vicinity of the workings the predominating rocks are greenstones, grading from massive to schistose, with chloritic and sericitic schists, probably members of the Mesozoic series which include the Blue Jack and Astra-Cambria deposits.

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On the Brandywine ground the strata are sheared along planes striking from north 20 degrees west to north 30 degrees west and dipping at angles from 65 to 70 degrees south-westerly. An intrusive body of altered diorite, containing a mineralized fissure, is exposed in the No. 1 adit area at the northern end of the workings. Between this point and the No. 2 adit, about 1,200 feet south-easterly measured along the western side of the creek, greenstone outcrops are visible at numerous points to the No. 2 adit location where this formation is intruded by felsitic dykes. Prevailing rock types in the section examined to the south-west are greenstones and schistose derivatives. The character of the mineralization developed by the No. 1 adit consists of a fissure, up to 3 feet wide, containing narrow bands and stringers of quartz, in which vugs are lined with quartz crystals. The quartz contains streaks and disseminations of pyrite, sphalerite, and galena, with occasional chalcopyrite. The altered diorite, separating quartz stringers, is pyritized and mineralized in planes with streaks of sphalerite, the fissure walls being coated in spots with manganese dioxide. Gold and silver values in the writer's samples were low, and a grab sample from about 10 tons of sorted material assayed: Gold, 0.04 oz. to the ton; silver, 2.8 oz. to the ton; copper, 0.3 per cent.; lead, 1.0 per cent.; zinc, 12.0 per cent. Another type of mineralization, as exposed at all other points visited, consists of scattered pyrite-sphalerite streaks and disseminations, associated with light irregular silicification, developed along shearing planes in schistose greenstone or chloritic schists. Two selected samples of such material assayed from 1.1 to 3.8 oz. silver to the ton and from 3.5 to 10.5 per cent. zinc, gold values being negligible.

The claims were staked in 1923 since when annual assessment work has been performed. Among past references to the property contained in the Annual Reports of this Department that for 1934, page F 14, contains assays of corroborative interest.

The fissure vein in the diorite strikes south 3 degrees east into the hill and dips at 80 degrees to the west. Its outcrop is exposed for a length of 15 feet north of the portal of No. 1 adit, adjoining the western side of the creek at 1,900 feet elevation. The weathered surface exposure includes from 8 to 12 inches of well-mineralized quartz along the western wall. Going southerly up the 35 degree sidehill slope the vein has been stripped at intervals to an elevation of 2,050 feet but debris and caving prevented examination. In the No. 1 adit, which is about 3/4 of a mile south-easterly from the Blue Jack lowest level, the vein has been drifted on for 140 feet south 3 degrees east, conditions being largely obscured by lagging along the back of the working.

The following samples were taken in the face from west to east: Quartz, 3 inches wide; Gold, 0.10 oz. to the ton; silver, 1.6 oz. to the ton; lead, 1.0 per cent.; zinc, 6.0 per cent.; then an altered rock parting 19 inches wide; Gold, 0.01 oz. to the ton; silver, 0.6 oz. to the ton; zinc, 3.0 per cent.; and finally quartz 6 inches wide, separated from previous sample by a 2-inch seam of gouge; Gold, 0.01 oz. to the ton; silver, 2.0 oz. to the ton; copper, 0.4 per cent.; lead, 0.5 per cent.; zinc, 7.0 per cent. The previously mentioned grab sample from 10 tons was from a pile outside the portal.

On the steep slope adjacent to the western side of the creek at a point about 1,000 feet south-easterly from the No. 1 adit and at 1,830 feet elevation, a lenticular quartz occurrence up to 5 feet wide, in sericitic schist, is imperfectly exposed by stripping, partly caved. The strike, not definitely discernible, is apparently about south 30 degrees east into the hill, with a steep dip to the south-west. A selected sample assayed: Gold, trace; silver, 0.8 oz. to the ton; lead, 0.5 per cent.; zinc, 6.0 per cent. Adjoining the foot-wall side of the vein, but diverging slightly in strike, there is a dyke, 4 feet wide, of carbonatized leached rock. About 200 feet south-easterly from this surface showing, and at 1,800 feet elevation, a felsitic porphyry dyke, 10 to 12 feet wide, is exposed at the portal of the No. 2 adit which is a crosscut driven south 54 degrees west for 105 feet (to October 20th, 1936.) The latter dyke, striking south 20 degrees east and dipping 85 degrees south-westerly, is cut by the adit at points between 6 and 20 feet in from the portal and the smaller dyke, which adjoins the surface showing, is cut at points between 77 and 81 feet in from the portal. With these exceptions the working is in schistose greenstone or chloritic schist. Rock of the latter description was exposed in the face where scattered streaks of pyrite and sphalerite, in lightly silicified country-rock, were associated with shearing planes striking south 30 degrees east and dipping 70 degrees south-westerly. A

selected sample here assayed: Gold, 0.01 oz. to the ton; silver, 1.1 oz. to the ton; zinc, 10.5 per cent.

Mineralization of similar character is very sparingly distributed in a crosscut adjoining the creek 120 feet southeasterly from the No. 2 adit and at the same elevation. This working, driven south 45 degrees west for 50 feet, cuts schistose greenstone, the planes of schistosity, in which the scattered mineralization occurs at widely separated points, striking south 20 degrees east and dipping 65 degrees south-westerly. Practically the same conditions are in evidence in a 30-foot crosscut, at 2,180 feet elevation, located on the locally irregular slope to Brandywine creek opposite or westerly from a point about 2,200 feet down-stream from the No. 2 adit location. Here the scattered, weak pyrite-sphalerite mineralization is accompanied by occasional specks of galena. A selected sample of this material assayed: Gold, 0.01 oz. to the ton; silver, 3.8 oz. to the ton; zinc, 3.5 per cent. Work is being carried on by hand in the No. 2 adit by Anderson and Barclay.
